# Ahiakpor on Mises and "Forced Saving": A Rejoinder

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Professor Ahiakpor's (2008) comment on my article (Garrison, 2004) warrants a comprehensive response. Ahiakpor questions the validity of my use of the production possibilities frontier, the plausibility of the market mechanisms illuminated by my analytical framework, and my interpretation of Ludwig von Mises's notions of "forced saving" in connection with business cycles.

According to the Austrian theory, a credit expansion orchestrated by the central bank gives rise to an unsustainable boom. An artificially low rate of interest steers the economy onto an internally conflicted growth path, which leads ultimately to a bust. Different writers, Mises among them, have introduced some notion of "forced saving" as essential to our understanding of the market process that traces out the boom-bust sequence. The substantive issues raised by Ahiakpor concern the particulars of the sequence and the meaning of "forced saving" in this context.

## The Logic of the Production Possibilities Frontier

Ahiakpor (2008, 3) takes exception to my representing the economy's output during a policy-induced boom as points lying *beyond* its production possibilities frontier (PPF). He insists that the PPF constitutes a physically defined maximum which, by construction, cannot be exceeded. However, conventional usage of the PPF by macroeconomists suggests otherwise.

Although textbook writers rarely make use of a PPF to illustrate cyclical movements of output, they typically do employ this graphical construction to illustrate economic growth. Two fully employed economies are depicted as having initially identical PPFs, each economy being represented by a point *on* its respective frontier. But in one economy, investment is favored over consumption to a greater extent than in the other. Straightforwardly, the economy with relative emphasis on investment grows more rapidly, as represented by a more pronounced outward shifting of the frontier. Gwartney *et* 

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al. (2006, 43) provide the conventional graphical rendering of this well-known relationship between the level of investment and the economy's growth rate.

The full employment that characterizes these differentially growing economies must allow, of course, for the natural rate of unemployment. It follows, then, that if market decisions are distorted by policy such that unemployment falls below its natural rate, the resulting level of output is depicted as a point beyond the PPF. The extra-PPF point represents an overheated economy and, equivalently, an unsustainble level of output. A super-natural level of employment and a corresponding sub-natural unemployment rate are characteristic of many mainstream macroeconomic constructions, including short-run/long-run Phillips curve analysis, the upward-sloping short-run aggregate supply curve, and the so-called Lucas supply curve, whose upward slope derives from money-induced misperceptions. Each of these constructions implicitly acknowledges that the supply of labor and of other factors are not perfectly inelastic at their full-employment levels and hence that the economy can produce temporarily beyond its PPF, the frontier itself representing sustainable levels of output.<sup>1</sup>

Ahiakpor (p. 5) suggests that a policy-induced boom might better be represented by a temporary outward shift of the PPF rather than by a point beyond an unshifted PPF. This alternative construction, though, would not only fail to capture the artificiality and hence unsustainability of the boom but would also be inconsistent with Ahiakpor's own understanding of the PPF. As he notes, the frontier itself presupposes an *efficient* use of resources. While inefficiencies are generally conceived as corresponding to points *inside* the frontier, the particular inefficiency at issue (a super-natural level of employment) results in points *outside* the frontier. During a policy-induced boom, the labor-leisure trade off is distorted in favor of labor. The unsustainably high level of output is attributable to this inefficiency (too little leisure) and should be represented by a point *beyond* the frontier.<sup>2</sup>

A micro-oriented colleague of mine has insisted that "to conceive of an economy moving beyond its PPF is simply to misconceive of the PPF: Some aspect of output is being overlooked." As is well known, accounting for the economy's output—its GDP—does "overlook" the production of leisure. But surely, to include leisure as a part of GDP so that no extra-PPF points are (even temporarily) possible would be to rob the PPF of any useful macroeconomic application: A depressed or overheated economy would remain nonetheless on its PPF—but with the leisure component of consumption inefficiently high or low, respectively.

Constructing the PPF in such a way that the economy can function inside the frontier or (temporarily) outside the frontier is consistent with macroeconomic constructions generally, allows straightforwardly for graphical representations of depression and overheating, and preserves the idea that the

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frontier itself consists of points that reflect an efficient (and sustainable) use of resources.<sup>3</sup>

## **Simultaneous Increases in Investment and Consumption**

The notion that the economy can produce temporarily beyond its PPF allows the policy-driven boom to be characterized by both increased investment and increased consumption. While acknowledging that the PPF's underlying economic principle is that expanding production in one direction requires curtailing production in the other, we should recognize that the use of a medium of exchange, particularly in as much as it permits centrally directed credit expansions, softens the otherwise hard link between the expanding and the curtailing. In his critique of policies recommended by J. M. Keynes, Hayek (1941, 408) refers to money as a "loose joint" in an otherwise self-equilibrating system and suggests that credit expansion exploits this looseness, temporarily liberating the market from constraints that will ultimately be imposed by scarcity. Note that the "temporary liberation" characterizes the boom, and the "ultimate imposition" characterizes the bust. But as indicated in the previous section, one actual curtailment associated with the extra-PPF point is that of leisure, which finds no explicit representation in the macroeconomically relevant PPF. And as mentioned below, an overheated economy may also be characterized by a curtailment of capital maintenance.

Increased demands stemming from credit expansion are felt at both ends of the production process. Low interest rates stimulate spending in the earliest stages of production, such as spending on product development and on capital goods of the highest durability; incomes earned in the early stages are, in turn, spent on consumption goods. The lag between this earning and spending is of trivial duration, a point driven home by John Hicks (1967, 208). While increased demands at both ends of the production process are met with positive quantity adjustments, the temporarily bloated labor force is drawn disproportionally into the early stages. This intertemporal misallocation of labor and of complementary capital (malinvestment as distinct from overinvestment) is the insight that gives the Austrian theory its uniqueness. Still, increased demands for consumer goods are accommodated to some extent. Inventories at retail are drawn down and some resources, including a part of the bloated labor force, are drawn into the late stages of production.

Ahiakpor's denial of the possibility of simultaneous increases in investment and consumption, a denial supposedly supported by his Figure 1 (p. 7), entails an implicit—and unwarranted—dismissal of Hayek's conception of time-consuming multi-stage production processes. In Ahiakpor's simpler two-sector reckoning, investment and consumption are constrained by construction to move in opposite directions—whether the movements are initiated by

increased saving or by credit expansion. It is worth noting here that Ahiakpor should see his own construction as equally telling against David Hume's understanding of credit expansion, an understanding that Ahiakpor himself seemingly shares. Ahiakpor (p. 1) approvingly notes Hume's claim that "an increase in the quantity of money, relative to its demand, lowers the rate of interest, raises the price level, and also *increases real output* and employment in the short run" (*emphasis added*). The increase in this Humean real output could well take the form of increases in the production of both capital goods and consumption goods.

While the increase in labor input during the boom dominates mainstream theorizing (short-run/long-run Phillips curve analysis being the most obvious example), the emphasis of the Austrian school has always been on the intertemporal misallocation of resources. Malinvestment (Mises, 1966, 560) entails the initiation of more or larger investment projects than can actually be seen through to completion. Hayek's temporal sequence of stages of production was conceived for the very purpose of illuminating the intertemporal nature of the discoordination that characterizes the boom and makes the bust inevitable.<sup>4</sup> The boom's inherent unsustainability derives directly from the conflicting incentives faced by savers and investors. The conflict appears in my PPF reckoning as a double distortion, with investors attempting to move in the direction of more investment while consumers are attempting to move in the direction of more consumption. But rather than see my opposing movements as a graphical illustration of the internal conflict that propels the boom and that is ultimately resolved by the bust, Ahiakpor (p. 6) takes my illustration as "a technical violation of what the frontier is supposed to indicate."

# The Plausibility of the Austrian Theory

Ahiakpor questions the plausibility of the Austrian theory. But if we acknowledge that credit expansion bolsters demand generally (without, of course, altering any of the economy's real parameters) and that the lower interest rates weaken incentives to save while strengthening incentives to invest, then it follows quite naturally—and hence plausibly—that the economy will overheat generally and in particular will experience hot spots in the earliest-stages of production and in current consumption.

The Austrian theory becomes even more plausible when compared to a very similar construction that lacks the uniquely Austrian insights. Under the heading "Growth Policy: Encouraging Capital Formation," Baumol and Blinder (2007, 138-39) frame the issues of investment and growth using a PPF essentially identical to my own: Moving along the PPF in the direction of more investment leads to more rapid growth. These textbook authors then explain how the monetary authority can get the investment community to invest more: It

lowers interest rates! Is the reader to believe that a policy-induced decrease in interest rates begets a more rapid growth rate in the same way that a saving-induced decrease does? In general, policies that override market signals are widely known to have consequences other than—and even opposite to—the intent of the policymaker. The authors do acknowledge that the central bank has only limited control over interest rates, but they fail to suggest that the policy-induced growth, which actually sends opposing signals to savers and investors, is internally conflicted and hence inherently unsustainable.

By contrast, the Austrian theory, in which market-determined interest rates lead to coordination and manipulated interest rates lead to discoordination, squares nicely with our general understanding of the role of market prices and of the consequences of government intervention. The clear family resemblance of this business cycle theory to the general market-friendly view of intervention adds plausibility to the Austrian view.

#### Mises's Two meanings of Forced Saving

Ahiakpor takes David Hume's rendition of forced saving to be canonical, although he does recognize that Hayek and others have identified many variations on the meaning of this term. For Hume (Ahiakpor, 2008, 1-2), a crucial link between monetary expansion and its consequence is that the overall price level increases without there also being a corresponding and timely increase in the overall level of wages. Ahiakpor indicates that Mises actually agrees with Hume and quotes Mises as acknowledging that monetary expansion is "accompanied by a fall in the exchange value of money...." But does Ahiakpor fail to notice that just three paragraphs later, the Austrian theory takes a different direction? Mises (1953, 360) writes, "We shall not say anything further here of the effects of an increased issue of fiduciary media on the determination of the objective exchange-value of money...." In other words, Mises's theory is not Hume's. Mises's primary focus is not the overall change in the purchasing power of money but rather the relative-price effects of a policyinduced change in the interest rate. This same focus on relative prices also characterizes Hayek's earliest writings (Hayek, 1975) on money and the business cycle.

For Mises, the concept of forced saving actually does double duty in a way that is especially relevant to the issues raised by Ahiakpor. In his *Theory of Money and Credit*, Mises describes the phenomenon of forced saving in its comparative-statics sense.<sup>5</sup> Suppose that, in the absence of any monetary (or other) disturbance, an economy is functioning in accordance with prevailing supply and demand conditions. Its rate of growth reflects the level of saving and investment. Now suppose that a credit expansion lowers interest rates, bolsters demand (particularly for long-term capital projects), and puts the economy through a boom-bust sequence. Mises argues that even after the cyclical

movements have played themselves out, i.e., after all the dust has settled and the economy is once again functioning in accordance with supply and demand conditions, the *natural* rate of interest and the market-determined levels of saving and investment may well differ from the rates that characterized the predisturbance economy. The cyclical episode may have redistributed wealth in favor of individuals who are big savers (or, conceivably, in favor of individuals who are big consumers). Any increase in saving associated with such a redistribution can be termed "forced saving." This is Mises's comparative-statics sense of forced saving.

In his later writings, Mises uses the forced saving primarily in the dynamic sense. Here Mises is not concerned with what the economy looks like once all the dust has settled; he is concerned instead with how the dust gets stirred up and with just how it eventually does settle. The investment undertaken during the period of artificially low interest rates is concentrated in the early stages of production processes—in investment activities that are more time-consuming than is consistent with people's saving preferences. That is, the consumer goods that would ultimately result from these investments are destined to be too long in the making, especially so in light of the weakened incentives to save.

The intertemporal mismatch between production plans and consumption preferences eventually necessitates—by a dearth of resources available for use in middling and then late stages of production—a reduction in consumption. This is the dynamic sense of forced saving. Consumption goods that could have been made available—and would have been made available had production been directed by unmanipulated interest rates—were sacrificed in favor of excessively time-consuming investments. As indicated in my 2004 article (p. 329), Hayek used the term forced saving in a similarly dynamic sense to mean the "artificially induced capital accumulation" that characterizes the boom. But for Mises, the artificially induced capital accumulation (his malinvestment) and the *accompanying* overconsumption are *followed* by—and necessitate—a reduction in consumption, which gives him (and us) the more literal sense of "forced saving." And this is the sense of the term most relevant to my own graphical rendering of the boom-bust sequence.

# **A Summary View**

My 2004 three-panel depiction of the Austrian business cycle theory is a blend of Misesian and Hayekian constructions. In both constructions, the general—and very plausible—idea is that market rates of interest are conducive to intertemporal coordination and that, almost as a corollary, policy-induced distortions of interest rates create intertemporal discoordination. Though fundamentally true to this general idea, my graphics are not—and could not

possibly be—in full accordance with all elements of the Mises-Hayek various expositions, which span several decades. Conceptual and terminological differences can be found both between and within these expositions.

The method of interlocking graphics, which seems to me to be particularly suited to my task, has a way of imposing consistency on the economic reasoning. For instance, Mises's repeated notion of "malinvestment and overconsumption" finds a much cleaner and straightforward representation in the interlocking graphics than does Hayek's alternative notion in which overconsumption is ruled out. By this same criterion, my graphics allow for overinvestment (in addition to malinvestment) despite Mises's (unwarranted) denial of that aspect of the boom. In these and other instances of designing the graphics to match the theory, I let coherence and plausibility be my guide.

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### **Notes**

Ahiakpor (2008, 10) claims—but without actually arguing the point—that the existence of a natural rate of unemployment (which he identifies as frictional and structural unemployment) is irrelevant to his critical remarks. But clearly, the natural rate, which is never conceived as an absolute lower limit to unemployment, provides some wiggle room that allows the economy to overheat. Still, this wiggle room is only part of the story. However, in my 2004 article as well as in earlier expositions, I rely

exclusively on the sub-natural unemployment rate to account for the points beyond the PPF. So doing aligns the Austrian theory most closely with typical Phillips-curve expositions, which also feature policy-induced reductions in the unemployment rate. But boom conditions are also characterized by increased overtime, postponed vacations, deferred retirements, and an overall increase labor-force participation. The movement up and along the labor supply curve—together with the reduction in the rate of unemployment—combine to produce a level of employment that (temporarily) exceeds full employment.

- <sup>2</sup> Although the Austrian theory allows for this distortion of the labor-leisure tradeoff, its primary focus is on the distortion of the intertemporal tradeoff a distortion whose eventual correction brings the boom conditions to an end.
- <sup>3</sup> My insistence on a macroeconomically relevant PPF—one for which the frontier itself excludes leisure and corresponds with the GDP of a fully employed economy—is not to disparage the microeconomist's application of the PPF to a simple two-good economy as a means of conveying the basic idea of opportunity cost. This is only to say that the PPF is a pedagogical device. As such, its most useful variant depends upon the issue at hand.
- <sup>4</sup>As noted in my 2004 article, Richard Strigl captured the major Austrian theme by conceptually separating the production process into three categories: venture capital, capital maintenance, and production for current consumption. During a credit expansion, resources are allocated to the first and third categories at the expense of the middling category. This particular conception of the intertemporal misallocation, though highly stylized, helps to underscore the essential unsustainability of the boom.
- <sup>5</sup> See Mises ([1913] 1953, 361-62). In this early exposition, Mises did not actually use the term forced saving, but in a subsequent publication (Mises, 1978, 121), he repeats the exposition, identifies it as entailing forced saving, and makes explicit reference to his 1913 exposition.